REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-11 were pending in this application. In this Amendment, Applicant has canceled claims 1-7 and 10, and has amended claims 8 and 11. Accordingly, claims 8, 9, and 11 will be pending upon entry of this Amendment.

In the Office Action mailed December 15, 2004, the Examiner rejected claims 1 and 6 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,682,404 to Miller et al. ("Miller"). The Examiner also rejected claims 8-11 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,806,036 to You ("You"). The Examiner also rejected claims 2-5 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Miller in view of You.

Because Applicant has canceled claims 1-7 and 10 without prejudice or disclaimer, the rejections are moot with respect to those claims. Regarding the remaining claims, Applicant has amended independent claims 8 and 11 to recite features that are neither taught nor suggested by the prior art of record. To the extent that the pending rejections might still be applied to the amended claims 8 and 11, and dependent claim 9, Applicant traverses the rejections as set forth below.

Applicant has amended independent claims 8 and 11 to clarify that, in implanting multiple (M) ions into the polysilicon structure, the ions are implanted through the insulating layer such that they penetrate the insulating layer. Specifically, amended claims 8 and 11 recite implanting multiple (M) first ions through said insulating layer into said polysilicon structure,

using said photo resist layer and said metal layer as a second mask. The You reference applied against claims 8 and 11 neither teaches nor suggests this feature.

You discloses a method for manufacturing a polysilicon type thin film transistor. As shown in Figure 4 of You, in implanting impurities into the polysilicon structure 23, You uses the photoresist layer 21, the gate pattern 27, and the gate insulating layer pattern 25 as a mask to carry out the implantation. Thus, gate insulating layer is patterned by etching prior to the implantation. With gate insulating layer patterned, the impurities of the implantation therefore do not pass through the gate insulating layer pattern 25 (col. 4, lines 9-36 and col. 8, claim 1).

In contrast, as shown in Figure 1(B) of the present application, the insulating layer 14 of the present invention is not patterned. Therefore, the implant energy of the ions 20 is sufficient to penetrate the insulating layer 14 in order to get into the polysilicon structure 12. In addition, the insulating layer 14 without patterning advantageously protects the polysilicon structure 12 from any other contaminations during the whole process. The You reference neither teaches nor suggest this method of implanting ions through the insulating layer. Support for these amendments can be found in the present application at, for example, paragraphs [0007] and [0010] and Figure 1(B).

In light of the amendments, Applicant respectfully submits that amended claims 8 and 11 are patentable over the prior art of record. Applicant further respectfully submits that claim 9 is as patentable due at least to its dependence on amended claim 8.

Applicant has also amended paragraphs [0007] and [0010] of the specification to articulate what the original figures, especially Figure 1(B), disclosed when viewed in the context of the

descriptions provided in the original specification. These amendments to the specification explain that the ions 20 are implanted through the insulating layer 14, as is shown in Figure 1(B). The original paragraphs [0007] and [0010] corresponding to Figure 1(B) made this aspect evident by describing that the insulating layer is first exposed and that then the implantation occurs, with insulating layer still in place and not patterned, as shown in Figure 1(B). Applicant therefore respectfully submits that these changes to the specification are fully supported by the original specification and drawings and that no new subject matter has been added.

In view of the foregoing, all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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Respectfully submitted,

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